



## Progress in Adhesion and Adhesives, Volume 3

K. L. Mittal (Editor)

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### DESCRIPTION

With the ever-increasing amount of research being published, it is a Herculean task to be fully conversant with the latest research developments in any field, and the arena of adhesion and adhesives is no exception. Thus, topical review articles provide an alternate and very efficient way to stay abreast of the state-of-the-art in many subjects representing the field of adhesion science and adhesives.

Based on the success of the preceding volumes in this series (“Progress in Adhesion and Adhesives”), the present volume comprises 12 review articles published in Volume 5 (2017) of *Reviews of Adhesion and Adhesives*.

The subject of these 12 reviews fall into the following general areas.

- Nanoparticles in reinforced polymeric composites.
- Wettability behavior and its modification, including superhydrophobic surfaces.
- Ways to promote adhesion, including tuber adhesion.
- Adhesives and adhesive joints
- Dental adhesion.

The topics covered include: Nanoparticles as interphase modifiers in fiber reinforced polymeric composites; fabrication of micro/nano patterns on polymeric substrates to control wettability behavior; plasma processing of aluminum alloys to promote adhesion; UV-curing

of adhesives; functionally graded adhesively bonded joints; adhesion between unvulgarized elastomers; electrowetting for digital microfluidics; control of biofilm at the tooth-restoration bonding interface; easy-to-clean superhydrophobic coatings; cyanoacrylates; promotion of resin-dentin bond longevity in adhesive dentistry; and effects of nanoparticles on nanocomposites Mode I and Mode II fractures.

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## ABOUT THE AUTHOR

**Kashmiri Lal Mittal** was employed by the IBM Corporation from 1972 through 1993. Currently, he is teaching and consulting worldwide in the broad areas of adhesion as well as surface cleaning. He has received numerous awards and honors including the title of doctor honoris causa from Maria Curie-Skłodowska University, Lublin, Poland. He is the editor of more than 130 books dealing with adhesion measurement, adhesion of polymeric coatings, polymer surfaces, adhesive joints, adhesion promoters, thin films, polyimides, surface modification surface cleaning, and surfactants. Dr. Mittal is also the Founding Editor of the journal *Reviews of Adhesion and Adhesives*.

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